Application No.: 10/591,095 Docket No.: 14546-00001-US

Amendment dated September 15, 2009 Reply to Office Action of April 15, 2009

AMENDMENTS TO THE SPECIFICATION

Please delete all prior versions of the sequence listing and replace with the sequence

listing submitted herewith as a text file via EFS-Web.

In the specification at page 1, following the paragraph for Related Applications added in

the First Preliminary Amendment, please insert the following new heading and paragraph:

SUBMISSION OF SEQUENCE LISTING

The Sequence Listing associated with this application is filed in electronic format via

EFS-Web and hereby incorporated by reference into the specification in its entirety. The name

of the text file containing the Sequence Listing is Sequence List 14546 00001 US. The size of

the text file is 11 KB, and the text file was created on September 11, 2009.

In the specification at page 6 line 8, please replace the paragraphs starting with "D-type

CDKs" with the following amended paragraphs:

D-type CDKs typically have the ability to phosphorylate and activate CDKs and have also been

shown to phosphorylate and activate RNA polymerase II. D-type CDKs may also exhibit one or

more and preferably all of the following features: (i) an NXTALRE motif (SEQ ID NO: 6),

where X is any amino acid; (ii) a catalytic kinase domain; and (iii) the ability to bind to cyclin H.

A CDKD may easily be distinguished from any other CDK since the motif NXTALRE (SEQ ID

NO: 6) is particular to this type of CDK (according to current knowledge). In contrast, according

to current knowledge, an A-type CDK will have a PSTAIRE motif (SEQ ID NO: 7); a B-type

CDK a P(P/S)T(A/T)(L/M)RE motif (SEQ ID NO: 8); a C-type CDK a PITAIRE motif (SEQ ID

NO: 9); an E-type CDK will have an SPTARE motif (SEQ ID NO: 10); and an F-type CDK will

have a XSAXRE motif (SEQ ID NO: 11).

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In the specification at page 6 line 25, please replace the paragraph starting with "In *Arabidopsis thaliana*" with the following amended paragraph:

In *Arabidopsis thaliana*, CDKDs are encoded by 3 different genes, CDKD;1, CDKD;2 and CDKD;3, each gene encoding a protein which comprises the motif NXTALRE (SEQ ID NO: 6), wherein X is any amino acid.

In the specification at page 7 line 36, please replace the paragraph starting with "The term "functional variant" with the following amended paragraph:

The term "functional variant" as defined herein is a variant which falls under the definition of a CDKD as hereinbefore defined. Preferably, the functional variant also has the ability to phosphorylate and activate CDKs and phosphorylate and activate RNA polymerase II. Preferably, the D-type CDK functional variant also exhibits one or more and preferably all of the following features: (i) an NXTALRE motif (SEQ ID NO: 6), where X is any amino acid; (ii) a catalytic kinase domain; and (iii) the ability to bind to cyclin H. A person skilled in the art may also readily determine whether a particular variant is functional (in the sense of whether it is able to increase plant yield) by simply substituting the sequence described in the Examples section below with the variant to be tested for function.